

**REMARKS**

Claims 22, 38-41, 76, 77, 81-83, and 90 are pending in the application.

Applicants expressly reserve the right to prosecute subject matter no longer or not yet claimed in one or more applications that may claim priority to the present application.

Reconsideration of the claims is requested in view of the following remarks.

**1. Obviousness-type double patenting**

With regard to the provisional rejection for obviousness-type double patenting over copending U.S. Application 10/773,618, Applicants note that no terminal disclaimer is procedurally required in a case where the provisional rejection involves two pending applications and where the rejection is the sole remaining issue in the case. *See, MPEP 804 (I)(B)* (The "provisional" double patenting rejection should continue to be made by the examiner in each application as long as there are conflicting claims in more than one application unless that "provisional" double patenting rejection is the only rejection remaining in at least one of the applications.“) In the event that other rejections of the present claims are successfully overcome by the current communication, withdrawal of the instant provisional rejection would be appropriate. Applicants authorize the examiner to follow MPEP 804 (I)(B) and allow the case without issuing a further Office Action should the provisional obviousness type-double patenting rejection be the sole remaining issue in the case.

**2. 35 U.S.C. § 112, first paragraph**

The rejection of claims 22, 38-41, 76, 77, 81-83, and 90 under 35 U.S.C. § 112, first paragraph as allegedly failing to satisfy the written description requirement is respectfully traversed.

**A. "A functional genomic *inlA* gene whereby the bacterium expresses InlA protein"**

The Office Action asserts that support could not be found for the limitation that the claimed *Listeria monocytogenes* bacteria comprising a deletion in the genomic *actA* and *inlB* genes further comprise "a functional genomic *inlA* gene whereby the bacterium expresses InlA protein." Applicants note that, to the contrary, the skilled artisan would readily acknowledge that

the Specification describes such bacteria in substantial detail. The following discussion of support is exemplary in nature, as the Specification describes such bacterial throughout.

The specification in paragraph [0105] states that in one embodiment of the invention “the mutant *Listeria* does not express a particular internalin, such as internalin B, at all because most or all of the gene or sequence encoding the internalin has been deleted.” (emphasis added). Such internalin B mutants are then described in further detail in paragraphs [0110]-[0118].

Turning to the examples, Example 1 beginning on page 61 of the specification describes preparation of internalin B mutants which retain a functional internalin A gene as recited in the claims. As described therein, one starting material for such a mutant *Listeria* is strain DP-L4029 which contains a deletion of the *actA* gene (paragraphs [0220], [0221], and [0225] of the specification). Example 1 goes on to describe a precise deletion of the *inlB* gene, while retaining the *inlA* gene. A number of mutant *Listeria* strains are then described in Table 1. Among these is one strain containing a deletion in the *actA* and *inlB* genes, and another strain containing a deletion in the *actA*, *inlB*, and *inlA* genes. This table clearly draws a distinction between the *actA inlB* “double mutant” and the *actA inlAB* triple mutant.

The examples continue by demonstrating the cytotoxicity of the *actA inlB* double mutant (Tables 3 and 4), and its use as a vaccine strain (Example 4). Moreover, the Specification refers at paragraph [0135] to deposit of strain PTA-5562, which is an *actA inlB* “double mutant” comprising a functional genomic *inlA* gene. This strain was the subject of originally filed claims 42-48.

Applicants respectfully submit that the specification reasonably conveys to the skilled artisan that the inventor was in possession of the claimed *Listeria monocytogenes* bacteria comprising a deletion in the genomic *actA* and *inlB* genes which further comprise “a functional genomic *inlA* gene whereby the bacterium expresses InlA protein.”

B. “Method of expressing a *non-Listerial* polypeptide in a host”

The Office Action further asserts that support could not be found for the use of such *Listeria monocytogenes* bacteria in a “method of expressing a *non-Listerial* polypeptide in a host.” Applicants note again that the skilled artisan would readily acknowledge that the

Specification describes such a method in substantial detail. The following discussion of support is exemplary in nature, as the Specification describes such bacterial throughout.

Written description for *Listeria* bacteria “comprising a nucleic acid sequence encoding a non-*Listerial* polypeptide operably linked to a promoter sequence directing expression of the polypeptide whereby the bacterium expresses the non-*Listerial* polypeptide” (claim 22) is not questioned. One purpose described in the Specification for producing such bacteria is expression of the non-*Listerial* polypeptides in a host. This is described in detail in the section entitled “Antigens and heterologous protein expression” beginning on page 41 of the Specification, and in the section entitled Immunogenicity of the attenuated *Listeria*” beginning on page 47 of the Specification. Such expression is typically for use of the heterologous polypeptide as an immunogenic antigen, although therapeutic expression is also contemplated. *See, e.g.,* Specification, paragraphs [0155]-[0157].

It cannot be seriously questioned that the specification describes delivery of such bacteria to a host (*e.g.*, Examples 2, 3, 4, 5, etc.) or that such bacteria raise an effective immune response to a heterologous polypeptide expressed thereby (*e.g.*, Examples 5, 6). It is unclear by what other possible means the bacteria of the present invention could produce an antigen-specific immune response in a host other than by expression of the heterologous polypeptide encoded by the bacterium. Plainly, then, Applicants were in possession of the claimed methods

With regard to claims to selecting a host to receive such *Listeria* bacteria on the basis of a need to protect against disease, Applicants again point to the sections entitled “Antigens and heterologous protein expression” beginning on page 41 of the Specification, and Immunogenicity of the attenuated *Listeria*” beginning on page 47 of the Specification. For example, paragraph [0202] indicates that vaccines comprising the *Listeria* bacteria of the present invention may be administered for “preventing or treating a disease in a host.” It is unclear what other possible meaning could attach to such a discussion other than the recipient host is receiving such bacteria based on a need for protection against a disease.

Applicants respectfully submit that the specification reasonably conveys to the skilled artisan that the inventor was in possession of the claimed methods.

C. Conclusion

The proper standard for determining compliance with the written description requirement of 35 U.S.C. § 112, first paragraph, is whether the specification reasonably conveys to the skilled artisan that the inventor was in possession of the claimed invention as of the filing date. See MPEP § 2163.02 (citing Ralston Purina Co. v. Far-Mar-Co., Inc., 227 USPQ 177, 179 (Fed. Cir. 1985)). An adequate written description “may be shown by any description of sufficient, relevant, identifying characteristics so long as a person skilled in the art would recognize that the inventor had possession of the claimed invention.” MPEP § 2163(II)(3)(a). Applicants respectfully submit that the specification reasonably conveys to the skilled artisan that the inventor was in possession of the claimed invention as of the filing date and that the written description requirement demands no more.

Applicants respectfully submit that, in view of the foregoing, no *prima facie* case of a failure to comply with the written description requirement has been established. Accordingly, Applicants respectfully request that the rejection under 5 U.S.C. § 112, first paragraph be reconsidered and withdrawn.

**CONCLUSION**

Applicants respectfully submit that all rejections and objections have been obviated and that the pending claims are in condition for allowance. An early notice to that effect is earnestly solicited. If the Examiner would like to discuss any of the issues raised in the Office Action, Applicant’s representative can be reached at (619) 203-3186.

Respectfully submitted,

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By: \_\_\_\_\_

Date: 5 October 2009

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